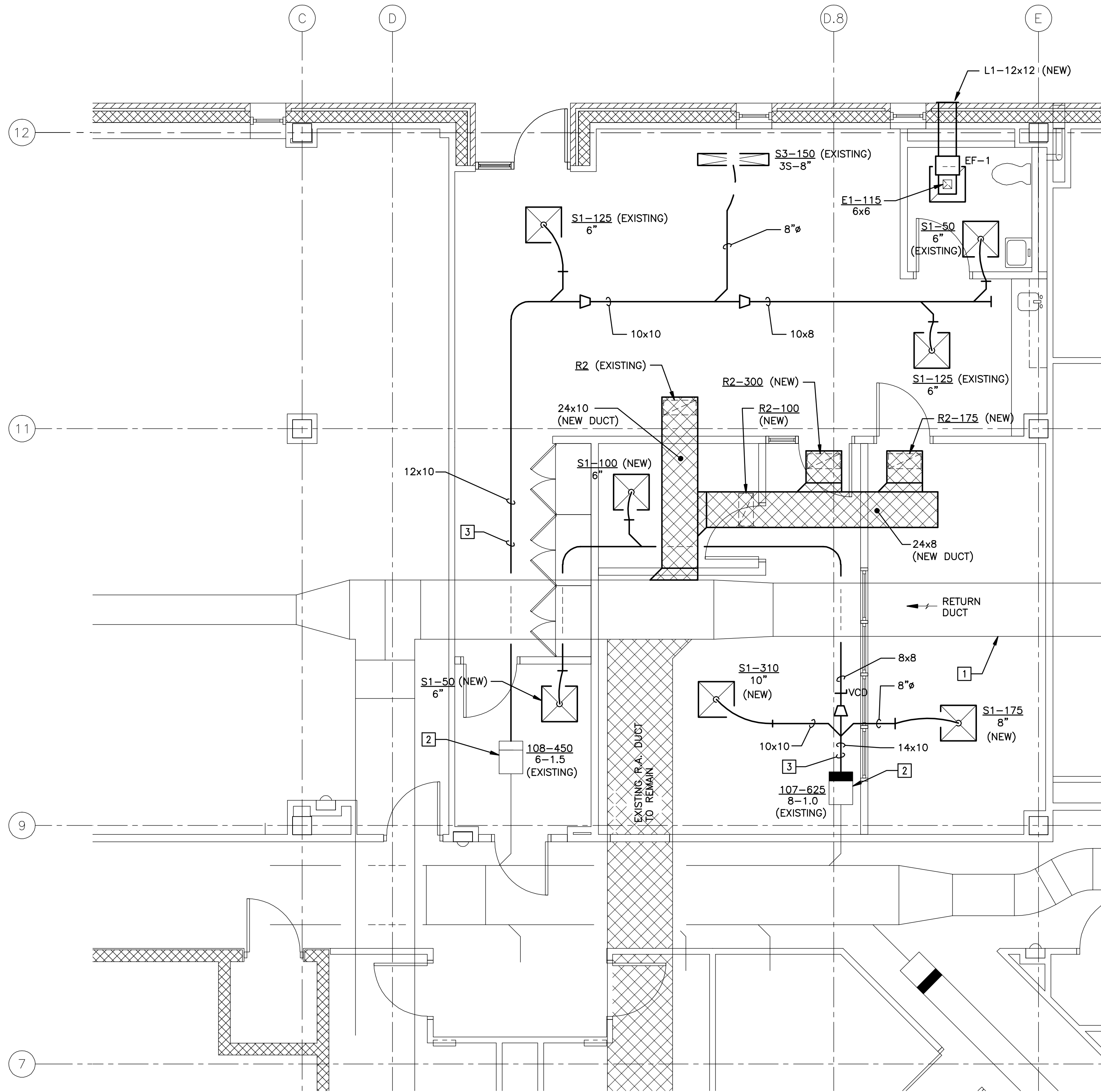


MAR 02, 2009 2:55 PM WELLS0093D\03\0085\03S14086G-COMMAND POST\CADD\TYPE B1 DESIGN SERVICES\MECH\VENT\V102.DWG - A101



PARTIAL FIRST FLOOR PLAN - VENTILATION - NEW WORK

0 2' 4' 8'  
SCALE: 1/4" = 1'-0"

KEY NOTES – NEW WORK:

- 1 EXISTING R.A. DUCTWORK TO REMAIN.
- 2 EXISTING VAV BOX AND HOT WATER REHEAT COIL CONNECTION TO REMIAN.
- 3 PROVIDE NEW SHEET METAL S&R DUCTWORK WITH DUCTMATE JOINTS. DUCTS SHALL BE INTERNALLY LINED WITH 1"/2.0 PCF DUCT LINER. DUCT SIZES SHOWN ARE CLEAR INSIDE DIMENSIONS. NEW SUPPLY DUCTS SHALL ALSO BE EXTERNALLY INSULATED WITH 1.5"/1.5 PCF F.G. DUCTWRAP. RETURN DUCTS SHALL NOT BE EXTERNALLY INSULATED.

GENERAL NOTES (HEATING & VENTILATION):

1. COORDINATE LOCATION OF VAV'S, ACCESS PANELS, ETC. WITH OTHER TRADES FOR EASE OF ACCESSIBILITY DURING MAINTENANCE.
2. PIPE AND DUCT INSTALLATION HEIGHTS WHEREVER PROVIDED ON THE DRAWINGS ARE INTENDED FOR GUIDANCE PURPOSES ONLY. CONTRACTORS SHALL BE RESPONSIBLE FOR SHOP DRAWINGS, PROPER INSTALLATION OF SYSTEM AND COORDINATION BETWEEN TRADES.
3. ALL PIPING AND DUCT PENETRATIONS THROUGH FLOOR AND WALLS SHALL BE MADE THROUGH NEATLY CUT OR DRILLED OPENING. PROVIDE SLEEVES THROUGH RATED WALLS. SEAL AROUND ALL EXISTING AND NEW DUCT/PIPE PENETRATIONS WITH 3M FIRE BARRIER SYSTEM OR DOW CORNING FIRE STOP. INTENT IS TO MAKE THE PROJECT ZONE SOUND PROOF FROM REST OF THE BLDG.
4. PROVIDE BALANCING DAMPERS AT ALL BRANCH TAKEOFF'S AND OTHER LOCATIONS FOR A BALANCE ABLE AIR DISTRIBUTION. SUCH DAMPERS SHALL BE PROVIDED IRRESPECTIVE OF WHETHER OR NOT THEY ARE SPECIFICALLY SHOWN ON THE DRAWINGS. PROVIDE SPLITTER DAMPERS AT TEES AND TURNING VANES AT ELBOWS.
5. ALL SUPPLY, RETURN AND EXHAUST DUCT JOINTS (SHOP FABRICATED) SHALL BE CONSTRUCTED USING DUCTMATE DUCT CONNECTION.
6. WHENEVER FEASIBLE, PROVIDE MINIMUM 6'-0" LENGTH OF DUCT DOWNSTREAM OF REHEAT COIL BEFORE TAKE-OFF'S/TEE'S.
7. ENTIRE AIR DISTRIBUTION SYSTEM INCLUDING SUPPLY/RETURN/EXHAUST DUCTWORK, GRILLES, DIFFUSERS, VAV BOXES, AND ALL COMPONENTS OF AHU SHALL BE MAINTAINED DUST AND GRIT FREE DURING CONSTRUCTION PERIOD. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING OF ALL COMPONENTS TO A/E SATISFACTION PRIOR TO START-UP OF THE SYSTEM. DUCTWORK ARRANGEMENT SHOWN ON DRAWINGS HAVE BEEN DESIGNED TO MINIMIZE NOISE IN THE SYSTEM. ALL TAKEOFF'S SHALL BE EXTENDED PLENUM. ALL SIZE CHANGES SHALL BE WITH GRADUAL TRANSITION. DIFFUSERS SHALL BE SIZED FOR MAX. NC OF 25. ALL ELBOWS SHALL BE OF RADIUS TYPE WITH TURNING VANES. NO SQUARE ELBOWS SHALL BE ALLOWED UNLESS APPROVED BY ENGINEER.
8. SUPPLY AND RETURN DUCTS SHALL BE INSULATED AS SPECIFIED. ALL EXHAUST DUCTS WITHIN 10'-0" OF THE ROOF PENETRATION SHALL ALSO BE INSULATED
  - EXTERNAL.
  - SUPPLY DUCTS (CEILING CAVITY): 1.5" THICK, 1.5 PCF DENSITY.
  - INTERNAL 1"/2.0 PCF ACOUSTICAL LINER
  - RETURN DUCTS: NO EXTERNAL INSULATION. PROVIDE 1"/2.0 PCF ACOUSTICAL LINER.
  - EXHAUST DUCTS: 1.5" THICK, 1.5 PCF DENSITY (ONLY ON EXHAUST DUCTS WITHIN 10'-0" FROM ROOF PENETRATION.
9. PROVIDE START-UP AND TEST & BALANCE FOR MECHANICAL SYSTEMS UNDER THIS PROJECT.
10. PROVIDE 1/2"x1/2"x1/2" HARDWARE CLOTH/MESH AT ALL OPEN ENDS OF SUPPLY/ RETURN/TRANSFER DUCTS WHERE AIR DEVICES ARE NOT SPECIFIED.
11. MEDIUM PRESSURE DUCTS SHALL BE MINIMUM 24 GAUGE (FOR L<30").
12. BATHROOM AND JANITOR ROOM EXHAUST DUCTS SHALL BE ALUMINUM SHEET. USE .020 INCH THICK (L≥12") AND .025 INCH THICK (FOR 13" < L ≤ 30").
13. MAXIMUM LENGTH OF FLEX DUCT SHALL BE LIMITED TO 5'-0".
14. ACCESS TO DAMPERS (MANUAL VCD'S, FD'S, ETC.) MUST BE COORDINATED BETWEEN TRADES.
15. INSTALL DUCT LINER WITH 100% ADHESIVE COVERAGE PLUS WASHERS AT MAXIMUM OF 12" ON CENTERS AND MAXIMUM OF 3" TO CORNER OF DUCT. PROVIDE METAL NOSING FOR TRANSITIONS FROM LINED TO UNLINED DUCTWORK.
16. ALL TEMPERATURE CONTROL WORK SHALL BE PERFORMED BY ALPHA CONTROLS PH (217)-529-3111.

| DATE | REVISION |
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183rd Fighter Wing  
Illinois Air National Guard



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|--------------------|-----|----------|
| HANSON PROJECT     |     |          |
| FILENAME V102.DWG  |     |          |
| SCALE 1/4" = 1'-0" |     |          |
| DATE 03/02/09      |     |          |
| LAYOUT             | HWH | 8/11/08  |
| DRAWN              | HWH | 08/12/08 |
| REVIEWED           | ATK | 8/14/08  |



PARTIAL FIRST FLOOR PLAN  
NEW WORK  
  
COMMAND POST (CP) RELOCATION  
183D FIGHTER WING  
SPRINGFIELD, IL

V1.2